

Lucina



Canadian law has insisted on the folic acid fortification of all types of white flour, enriched pasta and cornmeal since November 1998. Now data from seven Canadian provinces for 1993–2002 (*New England Journal of Medicine* 2007;**357**:135–42) have shown that the prevalence of neural tube defects fell from 1.58 per 1000 births before fortification to 0.86 per 1000 after full fortification. The reduction was 46% for all neural tube defects, 53% for spina bifida, 38% for anencephaly and 31% for encephalocele. It was greater in provinces with higher prefortification rates and the differences between provinces were virtually eliminated.

There is evidence that air pollution may be associated with adverse pregnancy outcomes and increased infant mortality. Now a study in 10 cities in England (*J Epidemiol Community Health* 2007;**61**:719–22) has shown no association between levels of carbon monoxide, nitric oxide, nitrogen dioxide, ozone or particulate matter (PM₁₀) and infant mortality. A 10 µg/m³ increase in air concentration of sulphur dioxide was associated with a significant 2% increase in infant mortality. The increase was seen for both neonatal and postneonatal deaths and was greater in the summer months. It is concluded that continuing reductions in atmospheric sulphur dioxide levels may provide benefits for infant health.

Eating plenty of fruit and vegetables might reduce the risks of cancer and of cardiovascular disease but fruit and vegetable intakes in the UK are poor. The school fruit and vegetable scheme (SFVS) is promoted by the government and since November 2004 each child aged 4–6 years has been given a piece of fruit or vegetable each day at school. Now a study at infant and primary schools in the north of England (*J Epidemiol Community Health* 2007;**61**:699–703) has shown that the SFVS was associated with increased fruit intake after 3 months. The effect was, however, less at 7 months and fruit intake returned to baseline levels in the second year when the children were no longer included in the SFVS. The intake of vegetables did not change during the study and there was evidence that fruit intake declined at home when it increased in school. The

SFVS had no lasting effect on fruit and vegetable intakes and it is suggested that other interventions are needed.

Acute lymphoblastic leukaemia (ALL) in infancy is rare and biologically different in several ways from ALL in older children. The prognosis is poor but has improved with the use of cytarabine. Now an international trial (*Lancet* 2007;**370**:240–50; see also Comment, *ibid*: 198–200) has given better results with a new hybrid treatment protocol including treatment elements from both ALL and acute myeloid leukaemia protocols. Overall event-free survival at 4 years was 47% and toxicity was no greater than with previous regimens. The addition of late intensification with high-dose cytarabine and methotrexate did not improve outcomes.

Lucina enjoys uplifting stories and she likes to pass them on. So here's a story that should put a spring in your step, have you whistling a happy tune, and generally increase your feel-good factor, if only for a while. It's an almost unthinkable long way from itinerant illegal immigrant harvesting fruit and vegetables in the fields of California to assistant professor of neurosurgery at one of the world's most famous hospitals but Alfredo Quiñones Hinojosa made that journey (*New England Journal of Medicine* 2007;**357**:529–31). He was born into poverty in rural Mexico. At the age of 19 he crossed the border into California, was caught and sent back, and crossed again. He worked in the fields, then as a janitor, and later as a welder. He attended a community college, learned English and got a place at the University of California, Berkeley. From there he went to Harvard to study medicine. He is now assistant professor of neurosurgery and oncology and director of the brain-tumor stem-cell laboratory at the Johns Hopkins School of Medicine, Baltimore and director of the brain-tumor program at the Johns Hopkins Bayview campus. It's not a unique story; many people have overcome adversity to achieve much, but as American waiters are wont to say, Enjoy.

There is uncertainty about whether, or in what circumstances, progesterone administration in pregnancy can prevent preterm labour. The 2 August 2007 issue of the *New*

England Journal of Medicine contains two relevant papers (*New England Journal of Medicine* 2007;**357**:454–61 and 462–9; see also editorial, *ibid*: 499–501). In a multi-centre US trial a total of 661 women with twin pregnancies were randomised to weekly injections of 17 alpha-hydroxyprogesterone caproate or placebo starting at weeks 16–20 and continuing to week 25. The progesterone injections did not reduce the risk of delivery before 35 weeks or change the rates of adverse fetal or neonatal events. In a study in England, Chile, Brazil and Greece 250 women with a short cervix at 20–25 weeks were randomised to vaginal progesterone or placebo each night between weeks 24 and 34. The rate of spontaneous delivery before 34 weeks was 19% in the treated group and 34% in the controls. The writer of the editorial refers to at least 14 trials of progesterone in high-risk women that are in progress, so reliable answers should be available in the fairly near future.

Rheumatic heart disease is still common among children in developing countries, with particularly high rates in sub-Saharan Africa. Detection is important so that prophylactic antibiotics can be given and the children followed up. Now studies in Cambodia in 2001–02 and in Mozambique in 2005 (*New England Journal of Medicine* 2007;**357**:470–6; see also Perspective, *ibid*: 439–41) have shown that ultrasound screening is at least 10 times as sensitive as clinical screening. In both countries randomly selected schoolchildren aged 6–17 years were screened clinically and by ultrasonography. Clinical examination detected eight cases among 3677 children in Cambodia (prevalence 2.2 cases per 1000 children) and five cases among 2170 in Mozambique (2.3 per 1000). Ultrasonography detected 79 cases (21.5 per 1000) in Cambodia and 66 (30.4 per 1000) in Mozambique. The mitral valve was affected in 87% of cases in Cambodia and 98% in Mozambique. These prevalence figures are an underestimate of the problem because school non-attenders are more likely to have rheumatic heart disease associated with poverty and overcrowding and it has been estimated that only 15–20% of rheumatic heart disease in the population is in schoolchildren. The cost of ultrasonographic screening needs to be reduced.